I/WE CLAIM:

1. A method for minimizing contact between a needle point and needle thread in a computer controlled embroidery machine, to prevent breakage of said thread by said needle point upon penetration of a workpiece during stitching, said method comprising the steps of:

determining a first straight line path between a current needle penetration location and a next needle penetration location; and,

moving to said next needle penetration location along a second non-straight path so that said needle thread is pulled away from said needle point.

2. The method of claim 1 and further comprising the steps of:

determining a probability of needle thread breakage for said first straight line path; and,

selecting said second non-straight path if said probability is within a predetermined range.

3. The method of claim 1 wherein said second non-straight path has a variable shape.

4. The method of claim 3 wherein said shape includes sinusoids, curves, arcs, and straight lines.

5. The method of claim 4 wherein said shape is modified in response to variables including thread tension, thread strength, thread diameter, stitch length, workpiece thickness, workpiece material, sewing speed, acceleration, speed of movement, and distance between said needle point and said workpiece.